

3

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<151> 2004-04-16
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<151> 2003-04-17
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Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr Asp Lys Lys Tyr 35 40 45

Ser Tyr Arg Val Val Val Asn Gly Ser Asp Leu Gly Val Glu Ser Asn 50 60

Phe Ala Val Thr Pro Ser Gly Gly Gln Thr Ile Asn Phe Leu Gln Tyr 65 70 75 80

Asn Lys Gly Tyr Gly Val Ala Asp Thr Lys Thr Ile Gln Val Phe Val
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Val Ile Pro Asp Thr Gly Asn Ser Glu Glu Tyr Ile Ile Ala Glu Trp \$100\$

Lys Lys Thr

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ggtgggeaga ecateaactt eeteeagtae aacaaggggt atggtgtege ggaeaceaaa 960
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<210> 8

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Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu 35 40 45

Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys 50 55 60

Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn 65 70 75 80

Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu 85 90 95

Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser 100 105 110

Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu 115 120 125

Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn 130 135 140

Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu 165 170 175

Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr 180 185 190

Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala 195 200 205

Thr Phe Gly Gly Asp His Pro Pro Lys Ser Asp Leu Glu Val Leu 210 215 220

Phe Gln Gly Pro Leu Gly Ser Ser Ala Thr Ser Leu Thr Phe Gln Leu 225 230 235 240

Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly 245 250 255

Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val 260 265 270

Leu Thr Asp Lys Lys Tyr Ser Tyr Arg Val Val Val Asn Gly Ser Asp 275 280 285

Leu Gly Val Glu Ser Asn Phe Ala Val Thr Pro Ser Gly Gln Thr 290 295 300

Ile Asn Phe Leu Gln Tyr Asn Lys Gly Tyr Gly Val Ala Asp Thr Lys 305 310 315 320

Thr Ile Gln Val Phe Val Val Ile Pro Asp Thr Gly Asn Ser Glu Glu 325 330 335

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gtcaatggct ctgaccttgg cgtcgagtcc aacttcgcag tgacaccgtc cggtgggcag 180
accatcaact tcctccagta caacaagggg tatggtgtcg cggacaccaa aacgattcaa 240
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<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
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Lys Lys Tyr Ser Tyr Arg Val Val Val Asn Gly Ser Asp Leu Gly Val 35 40 45

Glu Ser Asn Phe Ala Val Thr Pro Ser Gly Gly Gln Thr Ile Asn Phe 50 60

Leu Gln Tyr Asn Lys Gly Tyr Gly Val Ala Asp Thr Lys Thr Ile Gln 65 70 75 80

Val Phe Val Val Ile Pro Asp Thr Gly Asn Ser Glu Glu Tyr Ile Ile 85 90 95

Ala Glu Trp Lys Lys Thr 100

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<213> Artificial Sequence

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240300

303

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Tyr Ser Tyr Arg Val Val Val Asn Gly Ser Asp Leu Gly Val Glu Ser 35 40 45

Asn Phe Ala Val Thr Pro Ser Gly Gly Gln Thr Ile Asn Phe Leu Gln 50 55 60

Tyr Asn Lys Gly Tyr Gly Val Ala Asp Thr Lys Thr Ile Gln Val Phe 65 70 75 80

Val Val Ile Pro Asp Thr Gly Asn Ser Glu Glu Tyr Ile Ile Ala Glu 85 90 95

Trp Lys Lys Thr 100

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acca	tcaa	.ct t	cctc	cagt	a ca	acaa	9999	tat	ggtg	tcg	cgga	cacc	aa a	.acga	ttcaa	•	240
gttt	tcgt	tg t	catt	ccag	a ta	ccgg	caac	tcg	gagg	agt	acat	catc	gc t	gagt	ggaag	Ī	300
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Tyr	Lys	Tyr 35	Ser	Tyr	Arg	Val	Val 40	Val	Asn	Gly	Ser	Asp 45	Leu	Gly	Val		
Glu	Ser 50	Asn	Phe	Ala	Val	Thr 55	Pro	Ser	Gly	Gly	Gln 60	Thr	Ile	Asn	Phe		
Leu 65		Tyr		_	_					Asp 75	Thr	Lys	Thr	Ile	Gln 80		

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aaggttctca ccgacaaagt cgagtccaac ttcgcagtga caccgtccgg tgggcagacc 180
atcaacttcc tccagtacaa caaggggtat ggtgtcgcgg acaccaaaac gattcaagtt 240
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<212> PRT

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Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr Asp Lys Val Glu 35 40 45

Ser Asn Phe Ala Val Thr Pro Ser Gly Gly Gln Thr Ile Asn Phe Leu 50 55 60

Gln Tyr Asn Lys Gly Tyr Gly Val Ala Asp Thr Lys Thr Ile Gln Val 65 70 75 80

Phe Val Val Ile Pro Asp Thr Gly Asn Ser Glu Glu Tyr Ile Ile Ala 85 90 95

Glu Trp Lys Lys Thr 100

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aaggttctca ccgacaaaaa atactcgtac cgcgtcgtgg tcaatggctc tgaccttggc 180
cagaccatca acttcctcca gtacaacaag gggtatggtg tcgcggacac caaaacgatt 240
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<211> 103

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic protein sequence

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Met Ser Ala Thr Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys 1 5 10 15

Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser 20 25 30

Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr Asp Lys Lys Tyr 35 40 45

Ser Tyr Arg Val Val Val Asn Gly Ser Asp Leu Gly Gln Thr Ile Asn 50 55 60

Phe Leu Gln Tyr Asn Lys Gly Tyr Gly Val Ala Asp Thr Lys Thr Ile 70 75 Gln Val Phe Val Val Ile Pro Asp Thr Gly Asn Ser Glu Glu Tyr Ile Ile Ala Glu Trp Lys Lys Thr 100 <210> 19 <211> 312 <212> DNA <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic nucleotide sequence atgtccgcca cgtcgctcac cttccagctt gcctacttgg tgaagaagat cgacttcgac 60 tacaccecca actggggeeg tggtacceca ageagetaca tegacaacet tacetteece 120 aaggttetea eegacaaaaa atactegtae egegtegtgg teaatggete tgacettgge 180 gtcgagtcca acttcgcagt gacaccgtcc ggtgggggtg tcgcggacac caaaacgatt 240 caagttttcg ttgtcattcc agataccggc aactcggagg agtacatcat cgctgagtgg 300 aagaagactt ga 312 <210> 20 <211> 103 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic protein sequence Met Ser Ala Thr Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser

Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr Asp Lys Lys Tyr 35 40 45

Ser Tyr Arg Val Val Val Asn Gly Ser Asp Leu Gly Val Glu Ser Asn 50 55 60 Phe Ala Val Thr Pro Ser Gly Gly Val Ala Asp Thr Lys Thr Ile Gln Val Phe Val Val Ile Pro Asp Thr Gly Asn Ser Glu Glu Tyr Ile 85 90 Ile Ala Glu Trp Lys Lys Thr 100 <210> 21 <211> 312 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic nucleotide sequence <400> 21 60 atgteegeea egtegeteae etteeagett geetaettgg tgaagaagat egaettegae tacaccccca actggggccg tggtacccca agcagctaca tcgacaacct taccttcccc 120 aaggttetea eegacaaaaa atactegtae egegtegtgg teaatggete tgaeettgge 180 240 gtcgagtcca acttcgcagt gacaccgtcc ggtgggcaga ccatcaactt cctccagtac 300 aacaaqqqqt atgtcattcc agataccggc aactcggagg agtacatcat cgctgagtgg 312 aagaagactt ga <210> 22 <211> 102 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic protein sequence

Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser 20 25 30

Met Ser Ala Thr Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys

Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr Asp Lys Lys Tyr 35 Ser Tyr Arg Val Val Val Asn Gly Ser Asp Leu Gly Val Glu Ser Asn 55 Phe Ala Val Thr Pro Ser Gly Gly Gln Thr Ile Asn Phe Leu Gln Tyr 70 75 Asn Lys Gly Tyr Ile Pro Asp Thr Gly Asn Ser Glu Glu Tyr Ile Ile Ala Glu Trp Lys Lys Thr 100 <210> 23 <211> 321 <212> DNA <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic nucleotide sequence <400> 23 atgtccgcca cgtcgctcac cttccagctt gcctacttgg tgaagaagat cgacttcgac 60 tacaccccca actggggccg tggtacccca agcagctaca tcgacaacct taccttcccc 120 180 aaggttetea eegacaaaaa atactegtae egegtegtgg teaatggete tgacettgge 240 gtegagteca acttegeagt gacacegtec ggtgggeaga ceateaactt cetecagtae aacaaggggt atggtgtcgc ggacaccaaa acgattcaag ttttcgttgt ctacatcatc 300 321 gctgagtgga agaagacttg a <210> 24 <211> 106 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic protein sequence

Met Ser Ala Thr Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys

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<400> 24

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<213> Artificial Sequence

<223> Description of Artificial Sequence: Synthetic protein sequence

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Ser Tyr Arg Val Val Val Asn Gly Ser Asp Leu Gly Val Glu Ser Asn 50	Ile	Asp	Phe	-	Tyr	Thr	Pro	Asn	-	Gly	Arg	Gly	Thr		Ser	Ser	
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Asn Lys Gly Tyr Gly Val Ala Asp Thr Lys Thr Ile Gln Val Phe Val 85 Val Ile Pro Asp Thr Gly Asn Ser Glu Glu 100 Val 27 (211> 237 (212> DNA (213> Artificial Sequence) (220> (223> Description of Artificial Sequence) (400> 27 atgtccgcca cgtcgctcac cttccagctt gcctacttgg tgaagaagat cgacttcgac 60 tacaccccca actggggccg tggtacccca agcagctaca tcgacaacct taccttcccc 120 aaggttctca ccgacaaaaa atactcgtac cgcgtcgtgg tcaatggctc tgaccttggc 180 attccagata ccggcaactc ggaggagtac atcatcgctg agtggaagaa gacttga 237 (210> 28 (211> 78 (211> 210> 21 (211	Ser	_	Arg	Val	Val	Val		Gly	Ser	Asp	Leu	-	Val	Glu	Ser	Asn	
Val Ile Pro Asp Thr Gly Asn Ser Glu Glu 100 105 <pre> <210> 27 <211> 237 <212> DNA <213> Artificial Sequence </pre> <pre> <220> <223> Description of Artificial Sequence: Synthetic nucleotide sequence <400> 27 atgtccgcca cgtcgctcac cttccagctt gcctacttgg tgaagaagat cgacttcgac 60 tacaccccca actggggccg tggtacccca agcagctaca tcgacaacct taccttcccc 120 aaggttctca ccgacaaaaa atactcgtac cgcgtcgtgg tcaatggctc tgaccttggc 180 attccagata ccggcaactc ggaggagtac atcatcgctg agtggaagaa gacttga 237 <210> 28 <211> 78 <212> PRT</pre>		Ala	Val	Thr	Pro		Gly	Gly	Gln	Thr		Asn	Phe	Leu	Gln	_	
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<220> <223> Description of Artificial Sequence: Synthetic protein sequence		3 > D					tifi	cial	Seq	uenc	e:S	ynth	etic				

<pre><400> 28 Met Ser Ala Thr Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys 1</pre>										
Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser 20 25 30										
Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr Asp Lys Lys Tyr 35 40 45										
Ser Tyr Arg Val Val Asn Gly Ser Asp Leu Gly Ile Pro Asp Thr 50 60										
Gly Asn Ser Glu Glu Tyr Ile Ile Ala Glu Trp Lys Lys Thr 65 70 75										
<210> 29 <211> 138 <212> DNA <213> Artificial Sequence										
<220> <223> Description of Artificial Sequence: Synthetic nucleotide sequence										
<400> 29 aatggetetg acettggegt egagtecaae ttegeagtga eacegteegg tgggeagaee	60									
atcaacttcc tccagtacaa caaggggtat ggtgtcgcgg acaccaaaac gattcaagtt	120									
ttcgttgtca ttccagat	138									
<210> 30 <211> 46 <212> PRT <213> Artificial Sequence										
<220> <223> Description of Artificial Sequence: Synthetic protein sequence										
<pre><400> 30 Asn Gly Ser Asp Leu Gly Val Glu Ser Asn Phe Ala Val Thr Pro Ser 1 5 10 15</pre>										
Gly Gly Gln Thr Ile Asn Phe Leu Gln Tyr Asn Lys Gly Tyr Gly Val 20 25 30										

<210> 31 <211> 348 <212> DNA <213> Artificial Sequence															
<220> <223> Description of Artificial Sequence: Synthetic nucleotide sequence															
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taca	cccc	ca a	ctgg	ggcg	c ag	gtac	ccca	agc	agct	aca	tcga	caac	ct t	acct	tcccc
aagg	ttct	ca c	cgac	aaaa	a at	actc	gtac	cgc	gtcg	tgg	tcaa	tggc	tc t	gacc	ttggc
gtcg	agtc	ca a	cttc	gcag	t ga	cacc	gtcc	ggt	gggc	aga	ccat	caac	tt c	ctcc	agtac
aaca	aggg	gt a	tggt	gtcg	c gg	acac	caaa	acg	atto	aag	tttt	cgtt	gt c	attc	cagat
accg	gcaa	.ct c	ggag	gagt	a ca	tcat	cgct	gag	tgga	aga	agac	ttga			
<210> 32 <211> 115 <212> PRT <213> Artificial Sequence															
<220> <223> Description of Artificial Sequence: Synthetic protein sequence															
	> 32		Thr	Cor	Len	Thr	Dhe	Gln	T. 211	Δla	Tur	Len	Va 1	Lys	Lvs
мес 1	ser	Ala	1111	5	ьец	IIII	FILE	GIII	10	AIG	1 7 1	Вси	Vai	15	БуБ
					_								_		
Ile	Asp	Phe	Asp 20	Tyr	Thr	Pro	Asn	Trp 25	Gly	Ala	GLY	Thr	Pro 30	Ser	Ser
Tyr	Ile	Asp 35	Asn	Leu	Thr	Phe	Pro 40	Lys	Val	Leu	Thr	Asp 45	Lys	Lys	Tyr
		33					40					43			
Ser	Tyr	Arg	Val	Val	Val	Asn	Gly	Ser	Asp	Leu	Gly	Val	Glu	Ser	Asn
	50					55					60				
Phe 65	Ala	Val	Thr	Pro	Ser 70	Gly	Gly	Gln	Thr	Ile 75	Asn	Phe	Leu	Gln	Tyr 80
Asn	Lys	Gly	Tyr	Gly 85	Val	Ala	Asp	Thr	Lys 90	Thr	Ile	Gln	Val	Phe 95	Val

Val Ile Pro Asp Thr Gly Asn Ser Glu Glu Tyr Ile Ile Ala Glu Trp
100 105 110

Lys Lys Thr 115

<210> 33

<211> 348

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic nucleotide sequence

<400> 33

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tacacccca actggggccg tgcaaccca agcagctaca tcgacaacct taccttcccc 120
aaggttctca ccgacaaaaa atactcgtac cgcgtcgtgg tcaatggctc tgaccttggc 180
gtcgagtcca acttcgcagt gacaccgtcc ggtgggcaga ccatcaactt cctccagtac 240
aacaaggggt atggtgcgc ggacaccaaa acgattcaag ttttcgttgt cattccagat 300
accggcaact cggaggagta catcatcgct gagtggaaga agacttga 348

<210> 34

<211> 115

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic protein sequence

<400> 34

Met Ser Ala Thr Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys 1 5 10 15

Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Ala Thr Pro Ser Ser 20 25 30

Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr Asp Lys Lys Tyr 35 40 45

Ser Tyr Arg Val Val Val Asn Gly Ser Asp Leu Gly Val Glu Ser Asn 50 55 60

19 Phe Ala Val Thr Pro Ser Gly Gly Gln Thr Ile Asn Phe Leu Gln Tyr 70 80 Asn Lys Gly Tyr Gly Val Ala Asp Thr Lys Thr Ile Gln Val Phe Val 85 90 Val Ile Pro Asp Thr Gly Asn Ser Glu Glu Tyr Ile Ile Ala Glu Trp Lys Lys Thr 115 <210> 35 <211> 348 <212> DNA <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic nucleotide sequence <400> 35 atgtccgcca cgtcgctcac cttccagctt gcctacttgg tgaagaagat cgacttcgac 60 tacaccccca actggggccg tggtgcacca agcagctaca tcgacaacct taccttcccc 120 aaggttetea eegacaaaaa atactegtae egegtegtgg teaatggete tgacettgge 180 gtcgagtcca acttcgcagt gacaccgtcc ggtgggcaga ccatcaactt cctccagtac 240 aacaaggggt atggtgtcgc ggacaccaaa acgattcaag ttttcgttgt cattccagat 300 348 accggcaact cggaggagta catcatcgct gagtggaaga agacttga <210> 36 <211> 115 <212> PRT <213> Artificial Sequence

<223> Description of Artificial Sequence: Synthetic protein sequence

Met Ser Ala Thr Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys

Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Ala Pro Ser Ser

Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr Asp Lys Lys Tyr 35 40 45

Ser Tyr Arg Val Val Val Asn Gly Ser Asp Leu Gly Val Glu Ser Asn 50 55 60

Phe Ala Val Thr Pro Ser Gly Gly Gln Thr Ile Asn Phe Leu Gln Tyr 65 70 75 80

Asn Lys Gly Tyr Gly Val Ala Asp Thr Lys Thr Ile Gln Val Phe Val 85 90 95

Val Ile Pro Asp Thr Gly Asn Ser Glu Glu Tyr Ile Ile Ala Glu Trp 100 105 110

Lys Lys Thr 115

<210> 37

<211> 696

<212> DNA

<400> 37

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic nucleotide sequence

gaqqaqtaca tcatcqctga gtggaagaag acttga

caaqaqcaca aqccaaaqaa qqatqatttc cqaaacgaat tcgatcactt gttgatcgaa 60 caggcaaacc atgctatcga aaagggagaa catcaattgc tttacttgca acaccaactc 120 gacgaattga atgaaaacaa gagcaaggaa ttgcaagaga aaatcattcg agaacttgat 180 240 qttqtttqcq ccatqatcga aggagcccaa ggagctttgg aacgtgaatt gaagcgaact 300 qatettaaca ttttqqaacq attcaactac gaagaggete aaactetcag caagatettg 360 cttaaggatt tgaaggaaac cgaacaaaaa gtgaaggata ttcaaaccca atccgccacg 420 tegeteacet tecagettge etacttggtg aagaagateg aettegaeta cacceccaac tggggccgtg gtaccccaag cagctacatc gacaacctta ccttccccaa ggttctcacc 480 gacaaaaaat actcgtaccg cgtcgtggtc aatggctctg accttggcgt cgagtccaac 540 600 ttcgcagtga caccgtccgg tgggcagacc atcaacttcc tccagtacaa caaggggtat qqtqtcqcqq acaccaaaac gattcaagtt ttcgttgtca ttccagatac cggcaactcg 660

696

<210> 38

<211> 231

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic protein sequence

<400> 38

Leu Leu Ile Glu Gln Ala Asn His Ala Ile Glu Lys Gly Glu His Gln 20 25 30

Leu Leu Tyr Leu Gln His Gln Leu Asp Glu Leu Asp Glu Asn Lys Ser 35 40 45

Lys Glu Leu Gln Glu Lys Ile Ile Arg Glu Leu Asp Val Val Cys Ala 50 55 60

Met Ile Glu Gly Ala Gln Gly Ala Leu Glu Arg Glu Leu Lys Arg Thr 65 70 75 80

Asp Leu Asn Ile Leu Glu Arg Phe Asn Tyr Glu Glu Ala Gln Thr Leu 85 90 95

Ser Lys Ile Leu Leu Lys Asp Leu Lys Glu Thr Glu Gln Lys Val Lys 100 105 110

Asp Ile Gln Thr Gln Ser Ala Thr Ser Leu Thr Phe Gln Leu Ala Tyr 115 120 125

Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly 130 135 140

Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr 145 150 155 160

Asp Lys Lys Tyr Ser Tyr Arg Val Val Val Asn Gly Ser Asp Leu Gly 165 170 175

Val Glu Ser Asn Phe Ala Val Thr Pro Ser Gly Gly Gln Thr Ile Asn 180 185 190 Phe Leu Gln Tyr Asn Lys Gly Tyr Gly Val Ala Asp Thr Lys Thr Ile 195 200 205

Gln Val Phe Val Val Ile Pro Asp Thr Gly Asn Ser Glu Glu Tyr Ile 210 215 220

Ile Ala Glu Trp Lys Lys Thr 225 230

<210> 39

<211> 696

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic nucleotide sequence

<400> 39 caaqaqcaca aqccaaaqaa ggatgatttc cgaaacgaat tcgatcactt gttgatcgaa 60 caggcaaacc atgctatcga aaagggagaa catcaattgc tttacttgca acaccaactc 120 qacqaattqa atqaaaacaa gagcaaggaa ttgcaagaga aaatcattcg agaacttgat 180 qttqtttqcq ccatqatcga aggagcccaa ggagctttgg aacgtgaatt gaagcgaact 240 300 gatcttaaca ttttggaacg attcaactac gaagaggctc aaactctcag caagatcttg cttaaggatt tgaaggaaac cgaacaaaaa gtgaaggata ttcaaaccca atccgccacg 360 420 tegeteacet tecagettge etaettggtg aagaagateg aettegaeta cacceccaae tggggcgcag gtaccccaag cagctacatc gacaacctta ccttccccaa ggttctcacc 480 540 qacaaaaaat actcgtaccg cgtcgtggtc aatggctctg accttggcgt cgagtccaac 600 ttcgcagtga caccgtccgg tgggcagacc atcaacttcc tccagtacaa caaggggtat ggtgtcgcgg acaccaaaac gattcaagtt ttcgttgtca ttccagatac cggcaactcg 660 696 gaggagtaca tcatcgctga gtggaagaag acttga

<220>

<223> Description of Artificial Sequence: Synthetic
 protein sequence

<210> 40

<211> 231

<212> PRT

<213> Artificial Sequence

<400> 40

Gln Glu His Lys Pro Lys Lys Asp Asp Phe Arg Asn Glu Phe Asp His

1 10 15

Leu Leu Ile Glu Gln Ala Asn His Ala Ile Glu Lys Gly Glu His Gln 20 25 30

Leu Leu Tyr Leu Gln His Gln Leu Asp Glu Leu Asp Glu Asn Lys Ser 35 40 45

Lys Glu Leu Gln Glu Lys Ile Ile Arg Glu Leu Asp Val Val Cys Ala 50 60

Met Ile Glu Gly Ala Gln Gly Ala Leu Glu Arg Glu Leu Lys Arg Thr 65 70 75 80

Asp Leu Asn Ile Leu Glu Arg Phe Asn Tyr Glu Glu Ala Gln Thr Leu 85 90 95

Ser Lys Ile Leu Leu Lys Asp Leu Lys Glu Thr Glu Gln Lys Val Lys
100 105 110

Asp Ile Gln Thr Gln Ser Ala Thr Ser Leu Thr Phe Gln Leu Ala Tyr 115 120 125

Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Ala Gly 130 \$135\$

Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr 145 150 155 160

Asp Lys Lys Tyr Ser Tyr Arg Val Val Val Asn Gly Ser Asp Leu Gly 165 170 175

Val Glu Ser Asn Phe Ala Val Thr Pro Ser Gly Gly Gln Thr Ile Asn 180 185 190

Phe Leu Gln Tyr Asn Lys Gly Tyr Gly Val Ala Asp Thr Lys Thr Ile 195 200 205

Gln Val Phe Val Val Ile Pro Asp Thr Gly Asn Ser Glu Glu Tyr Ile 210 215 220 Ile Ala Glu Trp Lys Lys Thr 225 <210> 41 <211> 696 <212> DNA <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic nucleotide sequence caagagcaca agccaaagaa ggatgatttc cgaaacgaat tcgatcactt gttgatcgaa 60 caggcaaacc atgctatcga aaagggagaa catcaattgc tttacttgca acaccaactc 120 gacgaattga atgaaaacaa gagcaaggaa ttgcaagaga aaatcattcg agaacttgat 180 gttgtttgcg ccatgatcga aggagcccaa ggagctttgg aacgtgaatt gaagcgaact 240 gatcttaaca ttttggaacg attcaactac gaagaggete aaactetcag caagatettg 300 cttaaggatt tgaaggaaac cgaacaaaaa gtgaaggata ttcaaaccca atccgccacg 360 togotoacct tocagottgo ctacttggtg aagaagatog acttogacta caccoccaac 420 tggggccgtg gtgcaccaag cagctacatc gacaacctta ccttccccaa ggttctcacc 480 gacaaaaaat actcgtaccg cgtcgtggtc aatggctctg accttggcgt cgagtccaac 540 ttcgcagtga caccgtccgg tgggcagacc atcaacttcc tccagtacaa caaggggtat 600 ggtgtcgcgg acaccaaaac gattcaagtt ttcgttgtca ttccagatac cggcaactcg 660 696 gaggagtaca tcatcgctga gtggaagaag acttga <210> 42 <211> 231 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic protein sequence Gln Glu His Lys Pro Lys Lys Asp Asp Phe Arg Asn Glu Phe Asp His

Leu Leu Ile Glu Gln Ala Asn His Ala Ile Glu Lys Gly Glu His Gln 20 25 30

Leu Leu Tyr Leu Gln His Gln Leu Asp Glu Leu Asn Glu Asn Lys Ser 35 40 45

Lys Glu Leu Gln Glu Lys Ile Ile Arg Glu Leu Asp Val Val Cys Ala 50 55 60

Met Ile Glu Gly Ala Gln Gly Ala Leu Glu Arg Glu Leu Lys Arg Thr 65 70 75 80

Asp Leu Asn Ile Leu Glu Arg Phe Asn Tyr Glu Glu Ala Gln Thr Leu 85 90 95

Ser Lys Ile Leu Leu Lys Asp Leu Lys Glu Thr Glu Gln Lys Val Lys
100 105 110

Asp Ile Gln Thr Gln Ser Ala Thr Ser Leu Thr Phe Gln Leu Ala Tyr 115 120 125

Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly 130 135 140

Ala Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr 145 150 155 160

Asp Lys Lys Tyr Ser Tyr Arg Val Val Val Asn Gly Ser Asp Leu Gly 165 170 175

Val Glu Ser Asn Phe Ala Val Thr Pro Ser Gly Gly Gln Thr Ile Asn 180 \$185\$

Phe Leu Gln Tyr Asn Lys Gly Tyr Gly Val Ala Asp Thr Lys Thr Ile 195 200 205

Gln Val Phe Val Val Ile Pro Asp Thr Gly Asn Ser Glu Glu Tyr Ile 210 215 220

Ile Ala Glu Trp Lys Lys Thr 225 230

<210> 43

<211> 732

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 nucleotide sequence

<400> 43						
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tgccatggtt	cagaaccatg	tatcattcat	cgtggtaaac	cattccaatt	ggaagccgtt	120
ttcgaagcca	accaaaacac	aaaaacggct	aaaattgaaa	tcaaagcctc	aatcgatggt	180
ttagaagttg	atgttcccgg	tatcgatcca	aatgcatgcc	attacatgaa	atgcccattg	240
gttaaaggac	aacaatatga	tattaaatat	acatggaatg	ttccgaaaat	tgcaccaaaa	300
tctgaaaatg	ttgtcgtcac	tgttaaagtt	atgggtgatg	atggtgtttt	ggcctgtgct	360
attgctactc	atgctaaaat	ccgcgattcc	gccacgtcgc	tcaccttcca	gcttgcctac	420
ttggtgaaga	agatcgactt	cgactacacc	cccaactggg	gcgcaggtac	cccaagcagc	480
tacatcgaca	accttacctt	ccccaaggtt	ctcaccgaca	aaaaatactc	gtaccgcgtc	540
gtggtcaatg	gctctgacct	tggcgtcgag	tccaacttcg	cagtgacacc	gtccggtggg	600
cagaccatca	acttcctcca	gtacaacaag	gggtatggtg	tcgcggacac	caaaacgatt	660
caagttttcg	ttgtcattcc	agataccggc	aactcggagg	agtacatcat	cgctgagtgg	720
aagaagactt	ga					732

<210> 44

<211> 243

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic protein sequence

<400> 44

Asp Gln Val Asp Val Lys Asp Cys Ala Asn His Glu Ile Lys Lys Val 1 5 10 15

Leu Val Pro Gly Cys His Gly Ser Glu Pro Cys Ile Ile His Arg Gly 20 25 30

Lys Pro Phe Gln Leu Glu Ala Val Phe Glu Ala Asn Gln Asn Thr Lys 35 40 45

Thr Ala Lys Ile Glu Ile Lys Ala Ser Ile Asp Gly Leu Glu Val Asp 50 60

Val Pro Gly Ile Asp Pro Asn Ala Cys His Tyr Met Lys Cys Pro Leu 65 70 75 80

Val Lys Gly Gln Gln Tyr Asp Ile Lys Tyr Thr Trp Asn Val Pro Lys 85 90 95

Ile Ala Pro Lys Ser Glu Asn Val Val Val Thr Val Lys Val Met Gly 100 105 110

Asp Asp Gly Val Leu Ala Cys Ala Ile Ala Thr His Ala Lys Ile Arg

Asp Ser Ala Thr Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys 130 135 140

Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Ala Gly Thr Pro Ser Ser 145 150 155 160

Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr Asp Lys Lys Tyr
165 170 175

Ser Tyr Arg Val Val Val Asn Gly Ser Asp Leu Gly Val Glu Ser Asn 180 185 190

Phe Ala Val Thr Pro Ser Gly Gly Gln Thr Ile Asn Phe Leu Gln Tyr 195 200 205

Asn Lys Gly Tyr Gly Val Ala Asp Thr Lys Thr Ile Gln Val Phe Val 210 215 220

Val Ile Pro Asp Thr Gly Asn Ser Glu Glu Tyr Ile Ile Ala Glu Trp 225 230 235 240

Lys Lys Thr

<210> 45

<211> 732

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 nucleotide sequence

<400> 45 gatcaagtcg atgtcaaaga ttgtgccaat catgaaatca aaaaagtttt ggtaccagga 60 tgccatggtt cagaaccatg tatcattcat cgtggtaaac cattccaatt ggaagccgtt 120 ttcgaagcca accaaaacac aaaaacgct aaaattgaaa tcaaagcctc aatcgatggt 180 ttagaagttg atgttcccgg tatcgatcca aatgcatgcc attacatgaa atgcccattg 240 qttaaaqqac aacaatatga tattaaatat acatggaatg ttccgaaaat tgcaccaaaa 300 tctgaaaatg ttgtcgtcac tgttaaagtt atgggtgatg atggtgtttt ggcctgtgct 360 attgctacte atgctaaaat cegegattee gecaegtege teacetteea gettgeetae 420 ttggtgaaga agatcgactt cgactacacc cccaactggg gccgtggtgc accaagcagc 480 tacategaca acettacett ecceaaggtt etcacegaca aaaaatacte gtacegegte 540 gtggtcaatg gctctgacct tggcgtcgag tccaacttcg cagtgacacc gtccggtggg 600 660 cagaccatca acttecteca gtacaacaag gggtatggtg tegeggacae caaaacgatt 720 caagttttcg ttgtcattcc agataccggc aactcggagg agtacatcat cgctgagtgg 732 aagaagactt ga

<210> 46

<211> 243

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic protein sequence

<400> 46

Asp Gln Val Asp Val Lys Asp Cys Ala Asn His Glu Ile Lys Lys Val

Leu Val Pro Gly Cys His Gly Ser Glu Pro Cys Ile Ile His Arg Gly
20 25 30

Lys Pro Phe Gln Leu Glu Ala Val Phe Glu Ala Asn Gln Asn Thr Lys 35 40 45

Thr Ala Lys Ile Glu Ile Lys Ala Ser Ile Asp Gly Leu Glu Val Asp 50 55 60

Val Pro Gly Ile Asp Pro Asn Ala Cys His Tyr Met Lys Cys Pro Leu
65 70 75 80

Val Lys Gly Gln Gln Tyr Asp Ile Lys Tyr Thr Trp Asn Val Pro Lys 85 90 95

Ile Ala Pro Lys Ser Glu Asn Val Val Val Thr Val Lys Val Met Gly
100 105 110

Asp Asp Gly Val Leu Ala Cys Ala Ile Ala Thr His Ala Lys Ile Arg 115 120 125

Asp Ser Ala Thr Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys 130 135 140

Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Ala Pro Ser Ser 145 150 155 160

Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr Asp Lys Lys Tyr 165 170 175

Ser Tyr Arg Val Val Val Asn Gly Ser Asp Leu Gly Val Glu Ser Asn 180 185 190

Phe Ala Val Thr Pro Ser Gly Gly Gln Thr Ile Asn Phe Leu Gln Tyr 195 200 205

Asn Lys Gly Tyr Gly Val Ala Asp Thr Lys Thr Ile Gln Val Phe Val 210 215 220

Val Ile Pro Asp Thr Gly Asn Ser Glu Glu Tyr Ile Ile Ala Glu Trp 225 230 235 240

Lys Lys Thr

<210> 47

<211> 1083

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic nucleotide sequence

<400> 47

caagagcaca agccaaagaa ggatgatttc cgaaacgaat tcgatcactt gttgatcgaa

caggcaaacc atgctatcga aaagggagaa catcaattgc tttacttgca acaccaactc 120

60

gacgaattga atgaaaacaa gagcaaggaa ttgcaagaga aaatcattcg agaacttgat 180 gttgtttgcg ccatgatcga aggagcccaa ggagctttgg aacgtgaatt gaagcgaact 240 gatettaaca ttttggaacg atteaactae gaagaggete aaacteteag caagatettg 300 cttaaggatt tgaaggaaac cgaacaaaaa gtgaaggata ttcaaaccca agatcaagtc 360 gatgtcaaag attgtgccaa tcatgaaatc aaaaaagttt tggtaccagg atgccatggt 420 tcagaaccat gtatcattca tcgtggtaaa ccattccaat tggaagccgt tttcgaagcc 480 aaccaaaaca caaaaacggc taaaattgaa atcaaagcct caatcgatgg tttagaagtt 540 qatqttcccg gtatcgatcc aaatgcatgc cattacatga aatgcccatt ggttaaagga 600 caacaatatg atattaaata tacatggaat gttccgaaaa ttgcaccaaa atctgaaaat 660 gttgtcgtca ctgttaaagt tatgggtgat gatggtgttt tggcctgtgc tattgctact 720 780 catqctaaaa tccqcgattc cgccacgtcg ctcaccttcc agcttgccta cttggtgaag 840 aaqatcqact tcqactacac ccccaactgg ggcgcaggta ccccaagcag ctacatcgac aaccttacct tccccaaggt tctcaccgac aaaaaatact cgtaccgcgt cgtggtcaat 900 960 qqctctqacc ttqqcgtcqa gtccaacttc gcagtgacac cgtccggtgg gcagaccatc 1020 aacttcctcc aqtacaacaa ggggtatggt gtcgcggaca ccaaaacgat tcaagttttc 1080 gttgtcattc cagataccgg caactcggag gagtacatca tcgctgagtg gaagaagact 1083 tga

<210> 48

<211> 360

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 protein sequence

<400> 48

Gln Glu His Lys Pro Lys Lys Asp Asp Phe Arg Asn Glu Phe Asp His

Leu Leu Ile Glu Gln Ala Asn His Ala Ile Glu Lys Gly Glu His Gln
20 25 30

Leu Leu Tyr Leu Gln His Gln Leu Asp Glu Leu Asn Glu Asn Lys Ser 35 40 45

Lys Glu Leu Gln Glu Lys Ile Ile Arg Glu Leu Asp Val Val Cys Ala 50 55 60

Met Ile Glu Gly Ala Gln Gly Ala Leu Glu Arg Glu Leu Lys Arg Thr 65 70 75 80

Asp Leu Asn Ile Leu Glu Arg Phe Asn Tyr Glu Glu Ala Gln Thr Leu 85 90 95

Ser Lys Ile Leu Leu Lys Asp Leu Lys Glu Thr Glu Gln Lys Val Lys 100 105 110

Asp Ile Gln Thr Gln Asp Gln Val Asp Val Lys Asp Cys Ala Asn His 115 120 125

Glu Ile Lys Lys Val Leu Val Pro Gly Cys His Gly Ser Glu Pro Cys 130 135 140

Asn Gln Asn Thr Lys Thr Ala Lys Ile Glu Ile Lys Ala Ser Ile Asp 165 170 175

Gly Leu Glu Val Asp Val Pro Gly Ile Asp Pro Asn Ala Cys His Tyr 180 185 190

Met Lys Cys Pro Leu Val Lys Gly Gln Gln Tyr Asp Ile Lys Tyr Thr
195 200 205

Trp Asn Val Pro Lys Ile Ala Pro Lys Ser Glu Asn Val Val Thr 210 215 220

Val Lys Val Met Gly Asp Asp Gly Val Leu Ala Cys Ala Ile Ala Thr 225 230 235 240

His Ala Lys Ile Arg Asp Ser Ala Thr Ser Leu Thr Phe Gln Leu Ala 245 250 255

Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Ala 260 265 270

Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu 275 280 285 Thr Asp Lys Lys Tyr Ser Tyr Arg Val Val Asn Gly Ser Asp Leu 290 295 300

Gly Val Glu Ser Asn Phe Ala Val Thr Pro Ser Gly Gly Gln Thr Ile 305 310 315 320

Asn Phe Leu Gln Tyr Asn Lys Gly Tyr Gly Val Ala Asp Thr Lys Thr 325 330 335

Ile Gln Val Phe Val Val Ile Pro Asp Thr Gly Asn Ser Glu Glu Tyr 340 345 350

Ile Ile Ala Glu Trp Lys Lys Thr 355 360

<210> 49

<211> 212

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic protein sequence

<400> 49

Met His Gly Asp Thr Pro Thr Leu His Glu Tyr Met Leu Asp Leu Gln $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Pro Glu Thr Thr Asp Leu Tyr Cys Tyr Glu Gln Leu Asn Asp Ser Ser 20 25 30

Glu Glu Asp Glu Ile Asp Gly Pro Ala Gly Gln Ala Glu Pro Asp 35 40 45

Arg Ala His Tyr Asn Ile Val Thr Phe Cys Cys Lys Cys Asp Ser Thr 50 55 60

Leu Arg Leu Cys Val Gln Ser Thr His Val Asp Ile Arg Thr Leu Glu 65 70 75 80

Asp Leu Leu Met Gly Thr Leu Gly Ile Val Cys Pro Ile Cys Ser Gln 85 90 95

Lys Pro Ser Ala Thr Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys
100 105 110

Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Ala Pro Ser 115 120 125

Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr Asp Lys Lys 130 135 140

Tyr Ser Tyr Arg Val Val Val Asn Gly Ser Asp Leu Gly Val Glu Ser 145 150 155 160

Asn Phe Ala Val Thr Pro Ser Gly Gly Gln Thr Ile Asn Phe Leu Gln
165 170 175

Tyr Asn Lys Gly Tyr Gly Val Ala Asp Thr Lys Thr Ile Gln Val Phe
180 185 190

Val Val Ile Pro Asp Thr Gly Asn Ser Glu Glu Tyr Ile Ile Ala Glu 195 200 205

Trp Lys Lys Thr 210

<210> 50

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 nucleotide sequence

<400> 50

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tatggtgtcg cggacaccaa aacgattcaa gttttcgttg tcattccaga taccggcaac

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Arg	Arg	Pro	Gln 20	Asp	Val	Lys	Phe	Pro 25	Gly	Gly	Gly	Gln	Ile 30	Val	Gly
Gly	Val	Tyr 35	Leu	Leu	Pro	Arg	Arg 40	Gly	Pro	Arg	Leu	Gly 45	Val	Arg	Ala
Thr	Arg 50	Lys	Thr	Ser	Glu	Arg 55	Ser	Gln	Pro	Arg	Gly 60	Arg	Arg	Gln	Pro
Ile 65	Pro	Lys	Ala	Arg	Gln 70	Pro	Glu	Gly	Arg	Ala 75	Trp	Ala	Gln	Pro	Gly 80
Tyr	Pro	Trp	Pro	Leu 85	Tyr	Gly	Asn	Glu	Gly 90	Leu	Gly	Trp	Ala	Gly 95	Trp
Leu	Leu	Ser	Pro 100	Arg	Gly	Ser	Arg	Pro 105	Ser	Trp	Gly	Pro	Thr 110	Asp	Pro
Arg	Arg	Arg 115	Ser	Arg	Asn	Leu	Gly 120	Lys	Val	Ile	Asp	Thr 125	Leu	Thr	Cys
Gly	Phe 130	Ala	Asp	Leu	Met	Gly 135	Tyr	Leu	Pro	Leu	Val 140	Tyr	Ala	Thr	Gly
Asn 145	Leu	Pro	Gly	Cys	Ser 150	Phe	Ser	Ile	Phe	Leu 155	Leu	Ala	Leu	Leu	Ser 160
Cys	Leu	Thr	Ile	Pro 165	Ala	Ser	Ala	Ser	Ala 170	Thr	Ser	Leu	Thr	Phe	Gln

Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp
180 185 190

Gly Arg Gly Ala Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys 195 200 205

Val Leu Thr Asp Lys Lys Tyr Ser Tyr Arg Val Val Asn Gly Ser 210 215 220

Asp Leu Gly Val Glu Ser Asn Phe Ala Val Thr Pro Ser Gly Gln 225 230 235 240

Thr Ile Asn Phe Leu Gln Tyr Asn Lys Gly Tyr Gly Val Ala Asp Thr 245 250 255

Lys Thr Ile Gln Val Phe Val Val Ile Pro Asp Thr Gly Asn Ser Glu 260 265 270

Glu Tyr Ile Ile Ala Glu Trp Lys Lys Thr 275 280

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<211> 856

<212> DNA

<400> 52

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic nucleotide sequence

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ggegcaacag ggaatetgee eggttgetee tittetatet teetittigge tittgetgee 480
tgtttgacca teecagette egettatgaa gteegceaeg tegeteaeet teeagettge 540

420

aaggtcatcg ataccetcac gtgcggcttc gccgatctca tggggtacct tccgctcgtc

ctacttggtg aagaagatcg acttcgacta cacccccaac tggggccgtg gtgcaccaag 600

cagctacatc	gacaacctta	ccttccccaa	ggttctcacc	gacaaaaaat	actcgtaccg	660
cgtcgtggtc	aatggctctg	accttggcgt	cgagtccaac	ttcgcagtga	caccgtccgg	720
tgggcagacc	atcaacttcc	tccagtacaa	caaggggtat	ggtgtcgcgg	acaccaaaac	780
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<210> 53

<211> 428

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 protein sequence

<400> 53

Met Pro Leu Glu Gln Arg Ser Gln His Cys Lys Pro Glu Glu Gly Leu 1 5 10 15

Glu Ala Arg Gly Glu Ala Leu Gly Leu Val Gly Ala Gl
n Ala Pro Ala 20 2530

Thr Glu Glu Glu Ala Ala Ser Ser Ser Ser Thr Leu Val Glu Val 35 40 45

Thr Leu Gly Glu Val Pro Ala Ala Glu Ser Pro Asp Pro Pro Gln Ser 50 55 60

Pro Gln Gly Ala Ser Ser Leu Pro Thr Thr Met Asn Tyr Pro Leu Trp 65 70 75 80

Ser Gln Ser Tyr Glu Asp Ser Ser Asn Gln Glu Glu Glu Gly Pro Ser 85 90 95

Thr Phe Pro Asp Leu Glu Ser Glu Phe Gln Ala Ala Leu Ser Arg Lys 100 105 110

Val Ala Glu Leu Val His Phe Leu Leu Leu Lys Tyr Arg Ala Arg Glu 115 120 125

Pro Val Thr Lys Ala Glu Met Leu Gly Ser Val Val Gly Asn Trp Gln 130 135 140

Tyr Phe Phe Pro Val Ile Phe Ser Lys Ala Ser Ser Ser Leu Gln Leu 145 150 155 160

Val Phe Gly Ile Glu Leu Met Glu Val Asp Pro Ile Gly His Leu Tyr 165 170 175

Ile Phe Ala Thr Cys Leu Gly Leu Ser Tyr Asp Gly Leu Leu Gly Asp 180 185 190

Asn Gln Ile Met Pro Lys Ala Gly Leu Leu Ile Ile Val Leu Ala Ile 195 200 205

Ile Ala Arg Glu Gly Asp Cys Ala Pro Glu Glu Lys Ile Trp Glu Glu 210 215 220

Leu Ser Val Leu Glu Val Phe Glu Gly Arg Glu Asp Ser Ile Leu Gly 225 230 235 240

Asp Pro Lys Lys Leu Leu Thr Gln His Phe Val Gln Glu Asn Tyr Leu 245 250 255

Glu Tyr Arg Gln Val Pro Gly Ser Asp Pro Ala Cys Tyr Glu Phe Leu 260 265 270

Trp Gly Pro Arg Ala Leu Val Glu Thr Ser Tyr Val Lys Val Leu His 275 280 285

His Met Val Lys Ile Ser Gly Gly Pro His Ile Ser Tyr Pro Pro Leu 290 295 300

His Glu Trp Val Leu Arg Glu Gly Glu Glu Ser Ala Thr Ser Leu Thr 305 310 315 320

Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro 325 330 335

Asn Trp Gly Arg Gly Ala Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe 340 345 350

Pro Lys Val Leu Thr Asp Lys Lys Tyr Ser Tyr Arg Val Val Asn 355 360 365

Gly Ser Asp Leu Gly Val Glu Ser Asn Phe Ala Val Thr Pro Ser Gly 370 375 380

Gly Gln Thr Ile Asn Phe Leu Gln Tyr Asn Lys Gly Tyr Gly Val Ala 385 390 395 400

Asp Thr Lys Thr Ile Gln Val Phe Val Val Ile Pro Asp Thr Gly Asn 405 410 415

Ser Glu Glu Tyr Ile Ile Ala Glu Trp Lys Lys Thr 420 425

<210> 54

<211> 1287

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 nucleotide sequence

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ggtgcaccaa gcagctacat cgacaacctt accttcccca aggttctcac cgacaaaaaa 1080
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acaccgtccg gtgggcagac catcaacttc ctccagtaca acaaggggta tggtgtcgcg 1200
gacaccaaaa cgattcaagt tttcgttgtc attccagata ccggcaactc ggaggagtac 1260
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<210> 55

<211> 232

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic protein sequence

<400> 55

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1 5 10 15

His Gly His Ser Tyr Thr Thr Ala Glu Glu Ala Ala Gly Ile Gly Ile 20 25 30

Leu Thr Val Ile Leu Gly Val Leu Leu Leu Ile Gly Cys Trp Tyr Cys 35 40 45

Arg Arg Arg Asn Gly Tyr Arg Ala Leu Met Asp Lys Ser Leu His Val 50 55 60

Gly Thr Gln Cys Ala Leu Thr Arg Arg Cys Pro Gln Glu Gly Phe Asp 65 70 75 80

His Arg Asp Ser Lys Val Ser Leu Gln Glu Lys Asn Cys Glu Pro Val 85 90 95

Val Pro Asn Ala Pro Pro Ala Tyr Glu Lys Leu Ser Ala Glu Gln Ser 100 105 110

Pro Pro Pro Tyr Ser Pro Ser Ala Thr Ser Leu Thr Phe Gln Leu Ala 115 120 125

Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg 130 135 140 Gly Ala Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu 145 Thr Asp Lys Lys Tyr Ser Tyr Arg Val Val Val Asn Gly Ser Asp Leu 165 Tyr Arg Val Val Val Asn Gly Ser Asp Leu 175

Gly Val Glu Ser Asn Phe Ala Val Thr Pro Ser Gly Gly Gln Thr Ile 180 185 190

Asn Phe Leu Gln Tyr Asn Lys Gly Tyr Gly Val Ala Asp Thr Lys Thr 195 200 205

Ile Gln Val Phe Val Val Ile Pro Asp Thr Gly Asn Ser Glu Glu Tyr 210 215 220

Ile Ile Ala Glu Trp Lys Lys Thr 225 230

<210> 56

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<211> 699

<400> 56

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic nucleotide sequence

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aacttcgcag tgacaccgtc cggtgggcag accatcaact tcctccagta caacaagggg

tatggtgtcg cggacaccaa aacgattcaa gttttcgttg tcattccaga taccggcaac

tcggaggagt acatcatcgc tgagtggaag aagacttga

60

600

660 699

atgccaagag aagatgctca cttcatctat ggttacccca agaaggggca cggccactct

<210> 57

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<211> 782

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic protein sequence

<400> 57

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Val Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly Tyr Ser 20 25 30

Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Arg Gln Ile Ile Gly Tyr 35 40 45

Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser Gly Arg 50 55 60

Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile Ile Gln 65 70 75 80

Asn Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp Leu Val 85 90 95

Asn Glu Glu Ala Thr Gly Gln Phe Arg Val Tyr Pro Glu Leu Pro Lys $100 \,$ $\,$ $105 \,$ $\,$ $110 \,$

Pro Ser Ile Ser Ser Asn Asn Ser Lys Pro Val Glu Asp Lys Asp Ala 115 120 125

Val Ala Phe Thr Cys Glu Pro Glu Thr Gln Asp Ala Thr Tyr Leu Trp 130 135 140

Trp Val Asn Asn Gln Ser Leu Pro Val Ser Pro Arg Leu Gln Leu Ser 145 150 155 160

As Gly As Arg Thr Leu Thr Leu Phe As Val Thr Arg As Asp Thr 165 170 175

Ala Ser Tyr Lys Cys Glu Thr Gln Asn Pro Val Ser Ala Arg Arg Ser 180 185 190

- Asp Ser Val Ile Leu Asn Val Leu Tyr Gly Pro Asp Ala Pro Thr Ile 195 200 205
- Ser Pro Leu Asn Thr Ser Tyr Arg Ser Gly Glu Asn Leu Asn Leu Ser 210 215 220
- Cys His Ala Ala Ser Asn Pro Pro Ala Gln Tyr Ser Trp Phe Val Asn 225 230 235 240
- Gly Thr Phe Gln Gln Ser Thr Gln Glu Leu Phe Ile Pro Asn Ile Thr 245 250 255
- Val Asn Asn Ser Gly Ser Tyr Thr Cys Gln Ala His Asn Ser Asp Thr 260 265 270
- Gly Leu Asn Arg Thr Thr Val Thr Thr Ile Thr Val Tyr Ala Glu Pro 275 280 285
- Pro Lys Pro Phe Ile Thr Ser Asn Asn Ser Asn Pro Val Glu Asp Glu 290 295 300
- Asp Ala Val Ala Leu Thr Cys Glu Pro Glu Ile Gln Asn Thr Thr Tyr 305 310 315 320
- Leu Trp Trp Val Asn Asn Gln Ser Leu Pro Val Ser Pro Arg Leu Gln 325 330 335
- Leu Ser Asn Asp Asn Arg Thr Leu Thr Leu Leu Ser Val Thr Arg Asn 340 345 350
- Asp Val Gly Pro Tyr Glu Cys Gly Ile Gln Asn Glu Leu Ser Val Asp \$355\$
- His Ser Asp Pro Val Ile Leu Asn Val Leu Tyr Gly Pro Asp Asp Pro 370 375 380
- Thr Ile Ser Pro Ser Tyr Thr Tyr Tyr Arg Pro Gly Val Asn Leu Ser 385 390 395 400
- Leu Ser Cys His Ala Ala Ser Asn Pro Pro Ala Gln Tyr Ser Trp Leu 405 410 415

Ile Asp Gly Asn Ile Gln Gln His Thr Gln Glu Leu Phe Ile Ser Asn 420 425 430

Ile Thr Glu Lys Asn Ser Gly Leu Tyr Thr Cys Gln Ala Asn Asn Ser 435 440 445

Ala Ser Gly His Ser Arg Thr Thr Val Lys Thr Ile Thr Val Ser Ala 450 455 460

Glu Leu Pro Lys Pro Ser Ile Ser Ser Asn Asn Ser Lys Pro Val Glu 465 470 475 480

Asp Lys Asp Ala Val Ala Phe Thr Cys Glu Pro Glu Ala Gln Asn Thr \$485\$

Thr Tyr Leu Trp Trp Val Asn Gly Gln Ser Leu Pro Val Ser Pro Arg 500 505 510

Leu Gln Leu Ser Asn Gly Asn Arg Thr Leu Thr Leu Phe Asn Val Thr 515 520 525

Arg Asn Asp Ala Arg Ala Tyr Val Cys Gly Ile Gln Asn Ser Val Ser 530 535 540

Ala Asn Arg Ser Asp Pro Val Thr Leu Asp Val Leu Tyr Gly Pro Asp 545 550 550 560

Thr Pro Ile Ile Ser Pro Pro Asp Ser Ser Tyr Leu Ser Gly Ala Asn 565 570 575

Leu Asn Leu Ser Cys His Ser Ala Ser Asn Pro Ser Pro Gln Tyr Ser 580 585 590

Trp Arg Ile Asn Gly Ile Pro Gln Gln His Thr Gln Val Leu Phe Ile 595 600 605

Ala Lys Ile Thr Pro Asn Asn Asn Gly Thr Tyr Ala Cys Phe Val Ser 610 620

Asn Leu Ala Thr Gly Arg Asn Asn Ser Ile Val Lys Ser Ile Thr Val 625 630 635 640

Ser Ala Ser Gly Thr Ser Pro Gly Leu Ser Ala Gly Ala Thr Val Gly 645 650 655

Ile	Met	lle	660 GIA	Val	ьeu	Val	GIY	Va1 665	Ala	Leu	IIe	ser	670	Thr	Ser	
Leu	Thr	Phe 675	Gln	Leu	Ala	Туг	Leu 680	Val	Lys	Lys	Ile	Asp 685	Phe	Asp	Tyr	
Thr	Pro 690	Asn	Trp	Gly	Arg	Gly 695	Ala	Pro	Ser	Ser	Tyr 700	Ile	Asp	Asn	Leu	
Thr 705	Phe	Pro	Lys	Val	Leu 710	Thr	Asp	Lys	Lys	Tyr 715	Ser	Tyr	Arg	Val	Val 720	
Val	Asn	Gly	Ser	Asp 725	Leu	Gly	Val	Glu	Ser 730	Asn	Phe	Ala	Val	Thr 735	Pro	
Ser	Gly	Gly	Gln 740	Thr	Ile	Asn	Phe	Leu 745	Gln	Tyr	Asn	Lys	Gly 750	Туг	Gly	
Val	Ala	Asp 755		Lys	Thr	Ile	Gln 760	Val	Phe	Val	Val	Ile 765	Pro	Asp	Thr	
Gly	Asn 770		Glu	Glu	Tyr	Ile 775	Ile	Ala	Glu	Trp	Lys 780	Lys	Thr			
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	Desci		Artificial	Sequence: S	ynthetic		
<400>							
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<212>	DNA	
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<220>		
<223>	Description of Artificial Sequence: Synthetic primer	
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	ggtac gagtatttgt agctgcttgg ggtacc	36
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<212>	DNA	
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<223>	Description of Artificial Sequence: Synthetic primer	
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<211> 36
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     primer
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<210> 68
<211> 36
<212> DNA
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Asn Trp Gly Arg Gly Thr
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Gly Arg Gly Thr Pro Ser
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Arg Gly Thr Pro Ser Ser Tyr
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Gly Thr Pro Ser Ser Tyr Ile Asp
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Thr Pro Asn Trp Gly Arg Gly Thr Pro
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Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr
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Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser
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Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro
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Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser
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 Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr
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<400> 165
Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile
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<210> 166
<211> 13
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<400> 166
Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp
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 <400> 168
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 <210> 169
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Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr
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                5
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<400> 171
Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro
<210> 172
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<400> 172
Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys
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Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr
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<400> 174
Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro
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Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile
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Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp
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 <400> 180
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Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr
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Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe
                5
<210> 184
<211> 14
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
      peptide
 Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro
 <210> 185
 <211> 14
 <212> PRT
 <213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 185
Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys
<210> 186
<211> 14
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 186
Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val
                5
<210> 187
<211> 15
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr
                                     10
<210> 188
<211> 15
<212> PRT
<213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 188
 Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro
                                     10
                 5
 <210> 189
 <211> 15
 <212> PRT
 <213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 189
Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser
                         10
<210> 190
<211> 15
<212> PRT
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      peptide
<400> 190
Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser
                                    10
                5
<210> 191
<211> 15
<212> PRT
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      peptide
Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr
                                     10
 <210> 192
 <211> 15
 <212> PRT
 <213> Artificial Sequence
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      peptide
 <400> 192
 Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile
 <210> 193
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 <212> PRT
 <213> Artificial Sequence
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      peptide
<400> 193
Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp
<210> 194
<211> 15
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<400> 194
Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn
                                    10
                5
<210> 195
<211> 15
<212> PRT
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      peptide
Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu
<210> 196
<211> 15
<212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 196
 Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr
                 5
 <210> 197
 <211> 15
 <212> PRT
 <213> Artificial Sequence
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<220>
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      peptide
<400> 197
Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe
                                    10
<210> 198
<211> 15
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 198
Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro
                                    10
                5
<210> 199
<211> 15
<212> PRT
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      peptide
Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys
                                     10
<210> 200
<211> 15
<212> PRT
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       peptide
 <400> 200
Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val
                 5
 <210> 201
 <211> 15
 <212> PRT
 <213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 201
Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu
<210> 202
<211> 16
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 202
Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr
                                    10
                5
<210> 203
<211> 16
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro
<210> 204
 <211> 16
 <212> PRT
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       peptide
 <400> 204
 Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser
                                     10
                 5
 <210> 205
 <211> 16
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 <213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 205
Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser
<210> 206
<211> 16
<212> PRT
<213> Artificial Sequence
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      peptide
<400> 206
Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr
                                   10
                5
<210> 207
<211> 16
<212> PRT
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      peptide
Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile
<210> 208
<211> 16
<212> PRT
<213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 208
 Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp
                 5
 <210> 209
 <211> 16
 <212> PRT
 <213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 209
Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn
                                    10
<210> 210
<211> 16
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
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<400> 210
Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu
                                    10
<210> 211
<211> 16
<212> PRT
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<223> Description of Artificial Sequence: Synthetic
      peptide
Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr
<210> 212
<211> 16
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 212
Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe
<210> 213
 <211> 16
 <212> PRT
 <213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 213
Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro
                                   10
         5
<210> 214
<211> 16
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 214
Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys
                                   10
                5
<210> 215
<211> 16
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val
                                     10
                5
<210> 216
<211> 16
<212> PRT
<213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 216
 Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu
 <210> 217
 <211> 16
 <212> PRT
 <213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 217
Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr
      5
                            10
<210> 218
<211> 17
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 218
Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly
                                  10
Thr
<210> 219
<211> 17
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 219
Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr
                5
Pro
<210> 220
<211> 17
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 220
Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro
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Ser

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<210> 221
<211> 17
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 221
Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser
                                   10
1
                5
Ser
<210> 222
<211> 17
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser
                                    10
Tyr
<210> 223
<211> 17
<212> PRT
<213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
      peptide
<400> 223
Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr
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Ile

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<210> 224
<211> 17
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 224
Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile
                                     10
                                                         15
Asp
<210> 225
<211> 17
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 225
Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp
Asn
 <210> 226
 <211> 17
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 226
 Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn
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Leu

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<210> 227
<211> 17
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 227
Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu
                                    10
Thr
<210> 228
<211> 17
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 228
Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr
Phe
<210> 229
<211> 17
 <212> PRT
<213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
       peptide
 Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe
                 5
 Pro
 <210> 230
 <211> 17
 <212> PRT
 <213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 230
Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro
                                    10
Lys
<210> 231
<211> 17
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 231
Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys
                                     10
Val
<210> 232
<211> 17
<212> PRT
<213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 232
 Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val
                                                         15
                 5
 1
 Leu
 <210> 233
 <211> 17
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
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Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu
                                    10
Thr
<210> 234
<211> 17
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 234
Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr
                                    10
Asp
<210> 235
<211> 18
<212> PRT
<213> Artificial Sequence
<220>
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 235
Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg
                 5
                                     10
 Gly Thr
 <210> 236
 <211> 18
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly
                                     10
```

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Thr Pro
<210> 237
<211> 18
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 237
Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr
                                     10
Pro Ser
<210> 238
<211> 18
<212> PRT
<213> Artificial Sequence
<220>
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 238
Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro
                                     10
 Ser Ser
 <210> 239
 <211> 18
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 239
 Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser
                                      10
```

Ser Tyr

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<210> 240
<211> 18
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 240
Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser
                                    10
Tyr Ile
<210> 241
<211> 18
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 241
Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr
                                     10
 Ile Asp
 <210> 242
 <211> 18
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 242
 Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile
                5
```

Asp Asn

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<210> 243
<211> 18
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp
Asn Leu
<210> 244
<211> 18
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 244
Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn
Leu Thr
 <210> 245
 <211> 18
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 245
 Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu
                                     10
                 5
 Thr Phe
 <210> 246
 <211> 18
 <212> PRT
 <213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 246
Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr
                                    10
Phe Pro
<210> 247
<211> 18
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 247
Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe
                                    10
Pro Lys
<210> 248
<211> 18
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 248
Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro
                                    10
                5
Lys Val
 <210> 249
 <211> 18
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
      peptide
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<400> 249
Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys
                                    10
Val Leu
<210> 250
<211> 18
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 250
Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val
                                    10
Leu Thr
<210> 251
<211> 18
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 251
Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu
Thr Asp
<210> 252
 <211> 18
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
      peptide
 Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr
             5
```

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Asp Lys
<210> 253
<211> 19
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 253
Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly
                                    10
Arg Gly Thr
<210> 254
<211> 19
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 254
Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg
                                   10
Gly Thr Pro
<210> 255
<211> 19
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 255
Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly
```

Thr Pro Ser

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<210> 256
<211> 19
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 256
Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr
                                    10
Pro Ser Ser
<210> 257
<211> 19
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 257
Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro
Ser Ser Tyr
<210> 258
<211> 19
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 258
Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser
              5
Ser Tyr Ile
```

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<210> 259
<211> 19
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 259
Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser
                                    10
Tyr Ile Asp
<210> 260
<211> 19
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 260
Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr
                                     10
 Ile Asp Asn
 <210> 261
 <211> 19
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 261
 Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile
                                      10
                 5
 Asp Asn Leu
  <210> 262
  <211> 19
  <212> PRT
  <213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp
                                    10
Asn Leu Thr
<210> 263
<211> 19
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 263
Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn
Leu Thr Phe
 <210> 264
 <211> 19
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 264
 Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu
                 5
 Thr Phe Pro
 <210> 265
 <211> 19
 <212> PRT
 <213> Artificial Sequence
  <223> Description of Artificial Sequence: Synthetic
       peptide
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Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr
Phe Pro Lys
<210> 266
<211> 19
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 266
Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe
                5
Pro Lys Val
<210> 267
 <211> 19
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 267
 Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro
                                     10
                 5
 Lys Val Leu
 <210> 268
 <211> 19
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys
                                    10
```

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Val Leu Thr
<210> 269
<211> 19
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 269
Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val
Leu Thr Asp
<210> 270
<211> 19
<212> PRT
<213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 270
 Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu
 Thr Asp Lys
 <210> 271
 <211> 19
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 271
 Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr
                 5
```

Asp Lys Lys

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<210> 272
<211> 20
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 272
Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp
                                   10
Gly Arg Gly Thr
            20
<210> 273
<211> 20
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 273
Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly
                                10
 Arg Gly Thr Pro
 <210> 274
 <211> 20
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 274
 Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg
     5
                                    10
 Gly Thr Pro Ser
             20
```

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<210> 275
<211> 20
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 275
Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly
Thr Pro Ser Ser
            20
<210> 276
<211> 20
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 276
Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr
                                    10
 Pro Ser Ser Tyr
 <210> 277
 <211> 20
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 277
 Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro
                 5
 Ser Ser Tyr Ile
           20
 <210> 278
 <211> 20
 <212> PRT
 <213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 278
Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser
                                   10
Ser Tyr Ile Asp
            20
<210> 279
<211> 20
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 279
Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser
                                     10
Tyr Ile Asp Asn
            20
<210> 280
<211> 20
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 280
Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr
                                     10
                 5
 Ile Asp Asn Leu
 <210> 281
 <211> 20
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
```

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Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile
Asp Asn Leu Thr
<210> 282
<211> 20
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 282
Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp
                                    10
Asn Leu Thr Phe
<210> 283
<211> 20
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 283
Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn
                                     10
 Leu Thr Phe Pro
             2.0
 <210> 284
 <211> 20
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu
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Thr Phe Pro Lys
<210> 285
<211> 20
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 285
Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr
                                    10
Phe Pro Lys Val
<210> 286
<211> 20
<212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 286
 Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe
 Pro Lys Val Leu
 <210> 287
 <211> 20
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 287
 Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro
                 5
  Lys Val Leu Thr
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<210> 288
<211> 20
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 288
Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys
                                    10
Val Leu Thr Asp
            2.0
<210> 289
<211> 20
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 289
Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val
                                    10
 Leu Thr Asp Lys
           20
 <210> 290
 <211> 20
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 290
 Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu
                 5
 Thr Asp Lys Lys
             20
```

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<210> 291
<211> 20
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 291
Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr
                                    10
Asp Lys Lys Tyr
            20
<210> 292
<211> 21
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 292
Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn
Trp Gly Arg Gly Thr
 <210> 293
 <211> 21
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 293
 Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp
                 5
 Gly Arg Gly Thr Pro
             20
 <210> 294
 <211> 21
 <212> PRT
 <213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 294
Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly
                                    10
Arg Gly Thr Pro Ser
<210> 295
<211> 21
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 295
Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg
                                   10
Gly Thr Pro Ser Ser
            20
 <210> 296
 <211> 21
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 296
 Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly
                 5
 Thr Pro Ser Ser Tyr
             20
 <210> 297
 <211> 21
 <212> PRT
 <213> Artificial Sequence
  <223> Description of Artificial Sequence: Synthetic
       peptide
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Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr
Pro Ser Ser Tyr Ile
            20
<210> 298
<211> 21
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 298
Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro
Ser Ser Tyr Ile Asp
<210> 299
<211> 21
<212> PRT
<213> Artificial Sequence
<220>
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 299
Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser
                 5
                                     10
 Ser Tyr Ile Asp Asn
             20
 <210> 300
 <211> 21
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser
                                     10
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Tyr Ile Asp Asn Leu
            20
<210> 301
<211> 21
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 301
Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr
                                    10
Ile Asp Asn Leu Thr
            20
<210> 302
<211> 21
<212> PRT
<213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 302
 Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile
                                     10
 Asp Asn Leu Thr Phe
 <210> 303
 <211> 21
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 303
 Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp
  Asn Leu Thr Phe Pro
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<210> 304
<211> 21
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 304
Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn
                                 10
Leu Thr Phe Pro Lys
            20
<210> 305
<211> 21
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 305
Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu
                                    10
 Thr Phe Pro Lys Val
      20
 <210> 306
 <211> 21
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr
                 5
                                     10
 Phe Pro Lys Val Leu
             20
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<210> 307
<211> 21
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 307
Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe
                                    10
Pro Lys Val Leu Thr
            20
<210> 308
<211> 21
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 308
Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro
                                    10
 Lys Val Leu Thr Asp
 <210> 309
 <211> 21
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 309
 Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys
                 5
 Val Leu Thr Asp Lys
              20
  <210> 310
  <211> 21
 <212> PRT
  <213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 310
Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val
                                    10
Leu Thr Asp Lys Lys
<210> 311
<211> 21
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 311
Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu
                                   10
Thr Asp Lys Lys Tyr
         20
<210> 312
<211> 21
<212> PRT
<213> Artificial Sequence
<220>
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 312
 Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr
                                    10
                 5
 Asp Lys Lys Tyr Ser
            20
 <210> 313
 <211> 22
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
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Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro
Asn Trp Gly Arg Gly Thr
            2.0
<210> 314
<211> 22
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 314
Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn
                                    10
Trp Gly Arg Gly Thr Pro
            20
<210> 315
<211> 22
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 315
Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp
                                     10
Gly Arg Gly Thr Pro Ser
             2.0
<210> 316
<211> 22
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
 Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly
                5
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Arg Gly Thr Pro Ser Ser
<210> 317
<211> 22
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 317
Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg
                                    10
Gly Thr Pro Ser Ser Tyr
           20
<210> 318
<211> 22
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 318
Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly
                                     10
 Thr Pro Ser Ser Tyr Ile
             20
 <210> 319
 <211> 22
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 319
 Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr
 Pro Ser Ser Tyr Ile Asp
             20
```

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<210> 320
<211> 22
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 320
Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro
                                   10
                5
Ser Ser Tyr Ile Asp Asn
            2.0
<210> 321
<211> 22
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 321
 Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser
                         10
 Ser Tyr Ile Asp Asn Leu
          20
 <210> 322
 <211> 22
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 322
 Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser
                                    10
 Tyr Ile Asp Asn Leu Thr
             20
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<210> 323
<211> 22
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 323
Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr
                                    10
Ile Asp Asn Leu Thr Phe
            20
<210> 324
<211> 22
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 324
Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile
                          10
 Asp Asn Leu Thr Phe Pro
           20
 <210> 325
 <211> 22
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 325
 Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp
 Asn Leu Thr Phe Pro Lys
             20
 <210> 326
 <211> 22
 <212> PRT
 <213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 326
Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn
Leu Thr Phe Pro Lys Val
            20
<210> 327
<211> 22
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 327
Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu
Thr Phe Pro Lys Val Leu
     20
<210> 328
<211> 22
<212> PRT
<213> Artificial Sequence
<220>
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 328
 Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr
                                     10
 Phe Pro Lys Val Leu Thr
             20
 <210> 329
 <211> 22
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
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Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe
                                    10
Pro Lys Val Leu Thr Asp
            20
<210> 330
<211> 22
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
<400> 330
Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro
                                    10
Lys Val Leu Thr Asp Lys
            20
<210> 331
<211> 22
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 331
Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys
                                     10
                 5
Val Leu Thr Asp Lys Lys
            20
<210> 332
 <211> 22
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val
                                     10
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Leu Thr Asp Lys Lys Tyr
            20
<210> 333
<211> 22
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 333
Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu
                                    10
Thr Asp Lys Lys Tyr Ser
          20
<210> 334
<211> 22
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 334
 Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr
 Asp Lys Lys Tyr Ser Tyr
             20
 <210> 335
 <211> 23
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 335
 Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr
                                    10
                 5
 Pro Asn Trp Gly Arg Gly Thr
             20
```

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<210> 336
<211> 23
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 336
Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro
                                   10
Asn Trp Gly Arg Gly Thr Pro
            20
<210> 337
<211> 23
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 337
Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn
                                   10
 Trp Gly Arg Gly Thr Pro Ser
         20
 <210> 338
 <211> 23
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 338
 Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp
                 5
                                     10
 Gly Arg Gly Thr Pro Ser Ser
             20
```

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<210> 339
<211> 23
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 339
Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly
                                    10
Arg Gly Thr Pro Ser Ser Tyr
            20
<210> 340
<211> 23
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 340
Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg
Gly Thr Pro Ser Ser Tyr Ile
        20
 <210> 341
 <211> 23
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 341
 Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly
                 5
 Thr Pro Ser Ser Tyr Ile Asp
 <210> 342
 <211> 23
 <212> PRT
 <213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 342
Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr
                                    10
Pro Ser Ser Tyr Ile Asp Asn
            20
<210> 343
<211> 23
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 343
Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro
Ser Ser Tyr Ile Asp Asn Leu
            20
<210> 344
 <211> 23
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 344
 Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser
                                    10
                 5
 Ser Tyr Ile Asp Asn Leu Thr
             20
 <210> 345
 <211> 23
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
```

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<400> 345
Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser
Tyr Ile Asp Asn Leu Thr Phe
            20
<210> 346
<211> 23
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 346
Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr
Ile Asp Asn Leu Thr Phe Pro
            20
<210> 347
<211> 23
<212> PRT
<213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 347
 Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile
                                     10
                 5
 Asp Asn Leu Thr Phe Pro Lys
           20
 <210> 348
 <211> 23
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp
                                     10
```

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Asn Leu Thr Phe Pro Lys Val
           20
<210> 349
<211> 23
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 349
Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn
                                   10
Leu Thr Phe Pro Lys Val Leu
            20
<210> 350
<211> 23
<212> PRT
<213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 350
 Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu
                            10
 Thr Phe Pro Lys Val Leu Thr
    20
 <210> 351
 <211> 23
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr
                                    10
```

Phe Pro Lys Val Leu Thr Asp 20

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<210> 352
<211> 23
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 352
Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe
                                   10
Pro Lys Val Leu Thr Asp Lys
            20
<210> 353
<211> 23
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 353
 Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro
                        10
 Lys Val Leu Thr Asp Lys Lys
            20
 <210> 354
 <211> 23
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys
                                  10
 Val Leu Thr Asp Lys Lys Tyr
             20
```

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<210> 355
<211> 23
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 355
Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val
                                    10
                5
Leu Thr Asp Lys Lys Tyr Ser
           20
<210> 356
<211> 23
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 356
Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu
 Thr Asp Lys Lys Tyr Ser Tyr
     20
 <210> 357
 <211> 23
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 357
 Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr
                                     10
                 5
 Asp Lys Lys Tyr Ser Tyr Arg
             20
 <210> 358
 <211> 24
 <212> PRT
 <213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 358
Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr
Thr Pro Asn Trp Gly Arg Gly Thr
            20
<210> 359
<211> 24
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 359
Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr
                                   1.0
Pro Asn Trp Gly Arg Gly Thr Pro
            20
 <210> 360
 <211> 24
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 360
 Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro
                                    10
                 5
 Asn Trp Gly Arg Gly Thr Pro Ser
             20
 <210> 361
 <211> 24
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
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<400> 361
Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn
                                   10
Trp Gly Arg Gly Thr Pro Ser Ser
            20
<210> 362
<211> 24
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 362
Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp
                                    10
Gly Arg Gly Thr Pro Ser Ser Tyr
            20
<210> 363
<211> 24
<212> PRT
<213> Artificial Sequence
<220>
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 363
Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly
                                    10
                 5
 Arg Gly Thr Pro Ser Ser Tyr Ile
             20
 <210> 364
 <211> 24
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg
                                  10
```

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Gly Thr Pro Ser Ser Tyr Ile Asp
           20
<210> 365
<211> 24
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 365
Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly
                                   10
Thr Pro Ser Ser Tyr Ile Asp Asn
            20
<210> 366
<211> 24
<212> PRT
<213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 366
 Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr
                                    10
 Pro Ser Ser Tyr Ile Asp Asn Leu
     20
 <210> 367
 <211> 24
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 367
 Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro
                 5
 Ser Ser Tyr Ile Asp Asn Leu Thr
```

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<210> 368
<211> 24
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 368
Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser
Ser Tyr Ile Asp Asn Leu Thr Phe
            20
<210> 369
<211> 24
<212> PRT
<213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 369
 Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser
                                     10
 Tyr Ile Asp Asn Leu Thr Phe Pro
             20
 <210> 370
 <211> 24
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
       peptide
  <400> 370
  Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr
  Ile Asp Asn Leu Thr Phe Pro Lys
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<210> 371
<211> 24
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 371
Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile
                                    10
Asp Asn Leu Thr Phe Pro Lys Val
            20
<210> 372
<211> 24
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 372
 Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp
                                     10
 Asn Leu Thr Phe Pro Lys Val Leu
            20
 <210> 373
 <211> 24
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 373
 Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn
                 5
 1
 Leu Thr Phe Pro Lys Val Leu Thr
             20
  <210> 374
  <211> 24
  <212> PRT
  <213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 374
Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu
Thr Phe Pro Lys Val Leu Thr Asp
            20
<210> 375
<211> 24
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr
<400> 375
 Phe Pro Lys Val Leu Thr Asp Lys
       20
 <210> 376
 <211> 24
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
       peptide
 Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe
                 5
 1
 Pro Lys Val Leu Thr Asp Lys Lys
             20
  <210> 377
  <211> 24
  <212> PRT
  <213> Artificial Sequence
  <223> Description of Artificial Sequence: Synthetic
        peptide
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<400> 377
Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro
                                    10
Lys Val Leu Thr Asp Lys Lys Tyr
            20
<210> 378
<211> 24
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 378
Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys
                                    10
Val Leu Thr Asp Lys Lys Tyr Ser
            20
 <210> 379
 <211> 24
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 379
 Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val
                 5
 Leu Thr Asp Lys Lys Tyr Ser Tyr
             20
 <210> 380
 <211> 24
 <212> PRT
 <213> Artificial Sequence
  <223> Description of Artificial Sequence: Synthetic
        peptide
  Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu
                 5
```

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Thr Asp Lys Lys Tyr Ser Tyr Arg
          20
<210> 381
<211> 24
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 381
Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr
Asp Lys Lys Tyr Ser Tyr Arg Val
      20
<210> 382
<211> 25
<212> PRT
<213> Artificial Sequence
<220>
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 382
 Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp
                                 10
                 5
 Tyr Thr Pro Asn Trp Gly Arg Gly Thr
             20
 <210> 383
 <211> 25
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 383
 Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr
                5
 Thr Pro Asn Trp Gly Arg Gly Thr Pro
```

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<210> 384
<211> 25
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 384
Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr
Pro Asn Trp Gly Arg Gly Thr Pro Ser
            20
<210> 385
<211> 25
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 385
Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro
Asn Trp Gly Arg Gly Thr Pro Ser Ser
            20
<210> 386
<211> 25
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn
          5
Trp Gly Arg Gly Thr Pro Ser Ser Tyr
```

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<210> 387
<211> 25
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp
                                   10
Gly Arg Gly Thr Pro Ser Ser Tyr Ile
            20
<210> 388
<211> 25
<212> PRT
<213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 388
 Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly
                            10
 Arg Gly Thr Pro Ser Ser Tyr Ile Asp
 <210> 389
 <211> 25
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
       peptide
  <400> 389
  Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg
                      10
                 5
  1
  Gly Thr Pro Ser Ser Tyr Ile Asp Asn
             20
  <210> 390
  <211> 25
  <212> PRT
  <213> Artificial Sequence
```

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<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 390
Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly
                                    10
Thr Pro Ser Ser Tyr Ile Asp Asn Leu
<210> 391
<211> 25
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr
 <400> 391
 Pro Ser Ser Tyr Ile Asp Asn Leu Thr
         20
 <210> 392
 <211> 25
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 392
 Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro
                                 10
              5
 1
  Ser Ser Tyr Ile Asp Asn Leu Thr Phe
             20
  <210> 393
  <211> 25
  <212> PRT
  <213> Artificial Sequence
  <223> Description of Artificial Sequence: Synthetic
        peptide
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<400> 393
Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser
Ser Tyr Ile Asp Asn Leu Thr Phe Pro
<210> 394
<211> 25
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 394
Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser
 Tyr Ile Asp Asn Leu Thr Phe Pro Lys
 <210> 395
 <211> 25
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 395
 Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr
                                      10
                  5
  Ile Asp Asn Leu Thr Phe Pro Lys Val
             20
  <210> 396
  <211> 25
  <212> PRT
  <213> Artificial Sequence
  <223> Description of Artificial Sequence: Synthetic
        peptide
  Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile
                                      10
                 5
```

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Asp Asn Leu Thr Phe Pro Lys Val Leu
           20
<210> 397
<211> 25
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 397
Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp
                                   10
Asn Leu Thr Phe Pro Lys Val Leu Thr
     20
<210> 398
<211> 25
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 398
Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn
Leu Thr Phe Pro Lys Val Leu Thr Asp
<210> 399
<211> 25
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 399
Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu
                                10
 Thr Phe Pro Lys Val Leu Thr Asp Lys
```

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<210> 400
<211> 25
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 400
Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr
Phe Pro Lys Val Leu Thr Asp Lys Lys
          20
<210> 401
<211> 25
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 401
Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe
                    10
Pro Lys Val Leu Thr Asp Lys Lys Tyr
    20
<210> 402
<211> 25
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 402
Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro
                5
Lys Val Leu Thr Asp Lys Lys Tyr Ser
```

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<210> 403
<211> 25
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 403
Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys
                                    10
Val Leu Thr Asp Lys Lys Tyr Ser Tyr
            20
<210> 404
<211> 25
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 404
Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val
                             10
 Leu Thr Asp Lys Lys Tyr Ser Tyr Arg
           20
 <210> 405
 <211> 25
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 405
 Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu
                 5
 Thr Asp Lys Lys Tyr Ser Tyr Arg Val
             20
 <210> 406
 <211> 25
 <212> PRT
 <213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 406
Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr
                                    10
Asp Lys Lys Tyr Ser Tyr Arg Val Val
            20
<210> 407
<211> 26
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 407
Thr Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe
         5
Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr
<210> 408
<211> 26
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 408
Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp
                                    10
                 5
1
 Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro
            20
 <210> 409
 <211> 26
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
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<400> 409
Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr
                                   10
Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser
<210> 410
<211> 26
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 410
Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr
Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser
            20
<210> 411
<211> 26
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 411
Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro
                5
                                    10
Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr
            20
<210> 412
<211> 26
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn
```

```
Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile
<210> 413
<211> 26
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 413
Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp
Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp
            20
<210> 414
<211> 26
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 414
Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly
                                     10
Arq Gly Thr Pro Ser Ser Tyr Ile Asp Asn
            20
<210> 415
<211> 26
<212> PRT
<213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
      peptide
 Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg
                                  10
 Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu
```

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<210> 416
<211> 26
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 416
Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly
                                   10
Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr
<210> 417
<211> 26
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 417
Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr
Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe
        20
<210> 418
<211> 26
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 418
Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro
    5
                                  10
Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro
```

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<210> 419
<211> 26
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 419
Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser
               5
                                    10
Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys
            20
<210> 420
<211> 26
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 420
Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser
                            10
Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val
        20
<210> 421
<211> 26
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 421
Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr
                5
                                    10
Ile Asp Asn Leu Thr Phe Pro Lys Val Leu
<210> 422
<211> 26
<212> PRT
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 422
Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile
                                    10
Asp Asn Leu Thr Phe Pro Lys Val Leu Thr
            20
<210> 423
<211> 26
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 423
Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp
                                    10
Asn Leu Thr Phe Pro Lys Val Leu Thr Asp
            20
<210> 424
<211> 26
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 424
Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn .
                5
                                     10
Leu Thr Phe Pro Lys Val Leu Thr Asp Lys
            20
                                 25
<210> 425
<211> 26
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
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<400> 425
Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu
                                  10
Thr Phe Pro Lys Val Leu Thr Asp Lys Lys
           20
<210> 426
<211> 26
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
    peptide
<400> 426
Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr
Phe Pro Lys Val Leu Thr Asp Lys Lys Tyr
   20
<210> 427
<211> 26
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 427
Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe
                        10
              5
Pro Lys Val Leu Thr Asp Lys Lys Tyr Ser
<210> 428
<211> 26
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro
```

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Lys Val Leu Thr Asp Lys Lys Tyr Ser Tyr
           20
<210> 429
<211> 26
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 429
Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys
Val Leu Thr Asp Lys Lys Tyr Ser Tyr Arg
           20
<210> 430
<211> 26
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 430
Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val
     5
Leu Thr Asp Lys Lys Tyr Ser Tyr Arg Val
            20
                 25
<210> 431
<211> 26
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu
              5
                                  10
Thr Asp Lys Lys Tyr Ser Tyr Arg Val Val
            20
```

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<210> 432
<211> 26
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 432
Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr
                                    10
Asp Lys Lys Tyr Ser Tyr Arg Val Val Val
            20
<210> 433
<211> 27
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
<400> 433
Ala Thr Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp
                                    10
Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr
      20
<210> 434
<211> 27
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 434
Thr Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe
                                     10
                 5
Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro
```

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<210> 435
<211> 27
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 435
Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp
                                    10
Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser
            20
<210> 436
<211> 27
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 436
Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr
Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser
<210> 437
<211> 27
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 437
Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr
                                     10
                5
Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr
            20
<210> 438
<211> 27
<212> PRT
<213> Artificial Sequence
```

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<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 438
Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro
                                    10
Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile
            20
<210> 439
<211> 27
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 439
Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn
                                    10
Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp
<210> 440
<211> 27
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 440
Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp
                                    10
Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn
            20
<210> 441
<211> 27
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
```

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<400> 441
Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly
                                   10
Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu
            20
<210> 442
<211> 27
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 442
Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg
Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr
            20
<210> 443
<211> 27
<212> PRT
<213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 443
 Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly
                                     10
                5
 Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe
            20
 <210> 444
 <211> 27
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr
                                    10
```

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Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro
<210> 445
<211> 27
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 445
Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro
Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys
           20
<210> 446
<211> 27
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 446
Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser
                        10
Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val
<210> 447
<211> 27
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 447
Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser
                                    10
 Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu
```

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<210> 448
<211> 27
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 448
Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr
               5
                                    10
Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr
            20
<210> 449
<211> 27
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
<400> 449
Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile
                                   10
Asp Asn Leu Thr Phe Pro Lys Val Leu Thr Asp
           20
<210> 450
<211> 27
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 450
Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp
     5
                                    10
Asn Leu Thr Phe Pro Lys Val Leu Thr Asp Lys
            20
```

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<210> 451
<211> 27
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 451
Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn
                                  10
Leu Thr Phe Pro Lys Val Leu Thr Asp Lys Lys
            20
<210> 452
<211> 27
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
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<400> 452
Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu
Thr Phe Pro Lys Val Leu Thr Asp Lys Lys Tyr
        20
<210> 453
<211> 27
<212> PRT
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 <223> Description of Artificial Sequence: Synthetic
      peptide
 <400> 453
 Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr
                         10
                5
 Phe Pro Lys Val Leu Thr Asp Lys Lys Tyr Ser
            20
 <210> 454
 <211> 27
 <212> PRT
 <213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 454
Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe
Pro Lys Val Leu Thr Asp Lys Lys Tyr Ser Tyr
            20
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<210> 455
<211> 27
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
<400> 455
Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro
                                     10
Lys Val Leu Thr Asp Lys Lys Tyr Ser Tyr Arg
            20
<210> 456
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<213> Artificial Sequence
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      peptide
 <400> 456
 Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys
                                     10
                 5
 Val Leu Thr Asp Lys Lys Tyr Ser Tyr Arg Val
             20
                                 25
 <210> 457
 <211> 27
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 <223> Description of Artificial Sequence: Synthetic
       peptide
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<400> 457
Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val
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Leu Thr Asp Lys Lys Tyr Ser Tyr Arg Val Val
           20
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<211> 27
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<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
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Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu
Thr Asp Lys Lys Tyr Ser Tyr Arg Val Val Val
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<210> 459
<211> 27
<212> PRT
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
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<400> 459
Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr
                5
                                    10
Asp Lys Lys Tyr Ser Tyr Arg Val Val Asn
            20
<210> 460
<211> 28
<212> PRT
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<220>
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      peptide
 Ser Ala Thr Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile
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Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr
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<210> 461
<211> 28
<212> PRT
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<400> 461
Ala Thr Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp
Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro
            20
<210> 462
<211> 28
<212> PRT
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthetic
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<400> 462
Thr Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe
                                    10
Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser
            20
                                25
<210> 463
<211> 28
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
Ser Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp
               5
                                    10
Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser
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<210> 464
<211> 28
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 464
Leu Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr
Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr
                                25
<210> 465
<211> 28
<212> PRT
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      peptide
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Thr Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr
                                     10
 Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile
             20
 <210> 466
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 Phe Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro
                 5
 Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp
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<210> 467
<211> 28
<212> PRT
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<400> 467
Gln Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn
                                    10
Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn
            20
<210> 468
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<223> Description of Artificial Sequence: Synthetic
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Leu Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp
Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu
 <210> 469
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       peptide
 <400> 469
 Ala Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly
                                  10
                 5
 Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr
                                 25
             20
 <210> 470
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 <212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
Tyr Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg
                                    10
Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe
<210> 471
<211> 28
<212> PRT
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<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 471
Leu Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly
Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro
            2.0
<210> 472
<211> 28
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 472
Val Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr
                5
                                     10
Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys
            20
<210> 473
<211> 28
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
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<400> 473
Lys Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro
               5
Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val
                               25
<210> 474
<211> 28
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 474
Lys Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser
 Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu
                                25
            20
 <210> 475
 <211> 28
 <212> PRT
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 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 475
 Ile Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser
                                     10
                 5
 Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr
                   25
             2.0
 <210> 476
 <211> 28
 <212> PRT
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  <223> Description of Artificial Sequence: Synthetic
       peptide
  Asp Phe Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr
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Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr Asp 20 25

<212> PRT <213> Artificial Sequence

<220>

<211> 28

<223> Description of Artificial Sequence: Synthetic
 peptide

Asp Asn Leu Thr Phe Pro Lys Val Leu Thr Asp Lys 20 25

<210> 478 <211> 28

<212> PRT

<213> Artificial Sequence

-220s

<223> Description of Artificial Sequence: Synthetic
 peptide

<400> 478

Asp Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp

Asn Leu Thr Phe Pro Lys Val Leu Thr Asp Lys Lys 20 25

<210> 479

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 479

Tyr Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn 1 5 10 15

Leu Thr Phe Pro Lys Val Leu Thr Asp Lys Lys Tyr 20 25

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<210> 480
<211> 28
<212> PRT
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<223> Description of Artificial Sequence: Synthetic
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<400> 480
Thr Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu
                                   10
Thr Phe Pro Lys Val Leu Thr Asp Lys Lys Tyr Ser
<210> 481
<211> 28
<212> PRT
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      peptide
<400> 481
Pro Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr
Phe Pro Lys Val Leu Thr Asp Lys Lys Tyr Ser Tyr
               25
<210> 482
<211> 28
<212> PRT
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      peptide
<400> 482
Asn Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe
                5
                          10
Pro Lys Val Leu Thr Asp Lys Lys Tyr Ser Tyr Arg
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<210> 483
<211> 28
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 483
Trp Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro
                                   10
Lys Val Leu Thr Asp Lys Lys Tyr Ser Tyr Arg Val
           20
                               25
<210> 484
<211> 28
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 484
Gly Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys
Val Leu Thr Asp Lys Lys Tyr Ser Tyr Arg Val Val
            20
                 25
<210> 485
<211> 28
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 485
Arg Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val
                                   10
               5
                                                15
Leu Thr Asp Lys Lys Tyr Ser Tyr Arg Val Val
            20
<210> 486
<211> 28
<212> PRT
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Synthetic
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<400> 486
Gly Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu
               5
                                   10
Thr Asp Lys Lys Tyr Ser Tyr Arg Val Val Asn
<210> 487
<211> 28
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
     peptide
<400> 487
Thr Pro Ser Ser Tyr Ile Asp Asn Leu Thr Phe Pro Lys Val Leu Thr
Asp Lys Lys Tyr Ser Tyr Arg Val Val Asn Gly
          20
<210> 488
<211> 6
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
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<400> 488
His His His His His
               5
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